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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,151	08/21/2006	Kyoichi Takeda	129093	5738
25944 7590 02/04/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
LOVE, TREVOR M				
ART UNIT		PAPER NUMBER		
1611				
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02/04/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/590,151

**Applicant(s)**

TAKEDA ET AL.

**Examiner**

TREVOR M. LOVE

**Art Unit**

1611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09/10/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-624/IC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 07/11/2008, 09/29/2006

### **DETAILED ACTION**

Acknowledgement is made to applicant's preliminary amendment filed 09/10/2008. Per said amendment, claim 1 is amended and claim 4 is cancelled.

Claims 1-3 and 5-10 are pending and are under consideration.

#### ***Claim Objections***

Claims 1-2 are objected to because of the following informalities: the claims recite "molar ration", given the content of the disclosure and the context within the claims, the Examiner believes that the intended phrase was "molar ratio" and is interpreting the phrase as such. Appropriate correction is required. Correction of the term "ration" to the term "ratio" will be considered a simple correction of an obvious typographical error.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruning et al (U.S. Patent number 6,242,499).**

Gruning teaches a polyglycerol ester that is prepared in two stages. The polyglycerol, which includes diglycerol (diglycerin), is esterified using fatty acid, and then isostearic acid is mixed with the polyglycerol. The composition is heated to 250°C for three hours. The reaction mixture is then cooled to 180°C and is mixed with a dimer acid. The composition is then heated again to 250°C for three hours. An amber-colored viscous product is obtained which is characterized by a hydroxyl number of 68 and an acid number of 1.5 (see column 4, lines 46-62), this reads on **instant claim 5**.

Gruning fails to directly disclose the viscosity of the composition. Gruning also fails to directly disclose the molar ratios between the components. Furthermore, Gruning fails to directly disclose the molecular weight of the composition.

With regards to the viscosities of **instant claims 6-8**, it is noted that Applicant identifies in the specification, on the paragraph that bridges pages 8 and 9, that by controlling the hydroxyl or acid value "it is possible to easily control the viscosity and the hydroxyl value of the desired hydroxyl compound in the reaction of the ester compound obtained in the first step with a predetermined amount of dimer acid in the second step". It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the viscosity to whatever values are preferred, particularly since Applicant teaches not only that it is possible to vary the viscosity, but that it is easy to control the viscosity. It is furthermore noted that Applicant has shown in table 1 that the instant compositions with the specified viscosities have a hydroxyl value that is between 30 and 80, the composition of Gruning teaches a composition of a hydroxyl value of 68 (see column 4, lines 46-62). Furthermore, the composition is taught as being made by a similar, if the not same method. The instant composition is made by combining the diglycerin and isostearic acid at a temperature of between 180 and 250°C for about 3 to 40 hours, then said dimer is combined with said newly formed ester at a temperature of 150 to 330°C and the acid value of the composition is allowed to be preferably at most 3.0 (see instant specification, page 8, lines 16-30). In Gruning, the polyglycerol and isostearic acid at a temperature of 250°C for 3 hours, then said dimer is combined with said newly formed ester at a temperature of 250°C and the acid value of the composition is 1.5 (see column 4, lines 46-62). Therefore, it would have been obvious to one of ordinary skill in the art to achieve viscosities within the claimed ranges since

the composition comprises the same components, reacted in the same way, with the same hydroxyl values and the same acid values.

With regards to the molar ratios and molecular weight of **instant claims 1-3 and 9-10**, the exact molecular weight of the polyglycerol component is not directly disclosed. Gruning teaches that a particularly suitable polyglycerol contains 0-30% glycerol, 15-40% diglycerol, 10-55% triglycerol, 2-25% tetraglycerol, and 0-15% pentaglycerol and higher (see column 3, lines 25-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the molecular weight of the composition, and the molar ratio of the components. One would have been motivated to vary the molar ratio of the components in order to test the amounts of esterification that occur with the different amounts. Furthermore, the molecular weight of the composition depends on the intended use and is readily varied. It is noted the discussion above with regards to claims 6-8 wherein it is identified that both the instant claims and Gruning are teaching a composition with the same components, reacted in the same way, with the same hydroxyl values, and the same acid values, wherein it is also noted that both compositions are being used in cosmetics. It is further noted that MPEP 2144.05 states: "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)."

***Conclusion***

No claims allowed. All claims rejected. No claims objected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TREVOR M. LOVE whose telephone number is (571)270-5259. The examiner can normally be reached on Monday-Thursday 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TL  
/Lakshmi S Channavajjala/  
Primary Examiner, Art Unit 1611  
January 30, 2009